

(12)特許協力条約に基づいて公開された国際公開

(19) 世界知的所有権機関  
国際事務局



(43) 国際公開日  
2004 年 3 月 25 日 (25.03.2004)

## PCT

(10) 国際公開番号  
**WO 2004/025287 A1**

- (51) 国際特許分類<sup>7)</sup>: G01N 25/18,  
27/18, F02D 15/00, 45/00, F02P 5/15
- (21) 国際出願番号: PCT/JP2003/011569
- (22) 国際出願日: 2003 年9 月10 日 (10.09.2003)
- (25) 国際出願の言語: 日本語
- (26) 国際公開の言語: 日本語
- (30) 優先権データ:  
特願2002-264543 2002 年9 月10 日 (10.09.2002) JP
- (71) 出願人 (米国を除く全ての指定国について): 三井金属  
鉱業株式会社 (MITSUI MINING & SMELTING CO.,

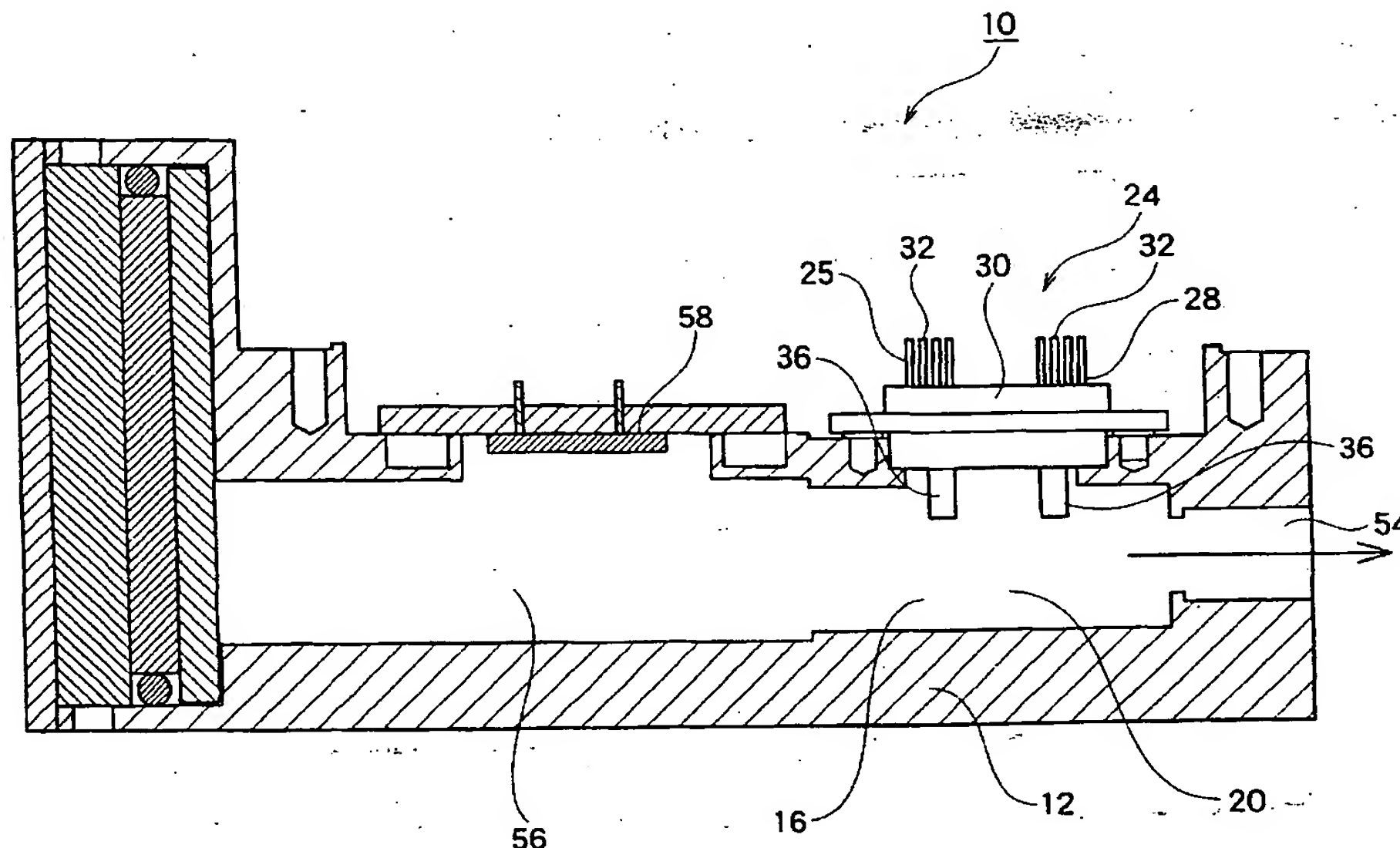
LTD.) [JP/JP]; 〒141-8584 東京都品川区大崎一丁目  
11番1号 Tokyo (JP).

- (72) 発明者; および  
(75) 発明者/出願人 (米国についてのみ): 高畑 孝行 (TAKAHATA, Takayuki) [JP/JP]; 〒362-0021 埼玉県上尾市原市 1 3 3 3 の 2 三井金属鉱業株式会社 総合研究所内 Saitama (JP). 川西 利明 (KAWANISHI, Toshiaki) [JP/JP]; 〒362-0021 埼玉県上尾市原市 1 3 3 3 の 2 三井金属鉱業株式会社 総合研究所内 Saitama (JP). 山岸 喜代志 (YAMAGISHI, Kiyoshi) [JP/JP]; 〒362-0021 埼玉県上尾市原市 1 3 3 3 の 2 三井金属鉱業株式会社 総合研究所内 Saitama (JP).
- (74) 代理人: 鈴木 俊一郎 (SUZUKI, Shunichiro); 〒141-0031 東京都品川区西五反田七丁目 1 3 番 6 号 五反田山崎ビル 6 階 鈴木国際特許事務所 Tokyo (JP).

〔統葉有〕

(54) Title: GASOLINE TYPE IDENTIFYING SYSTEM AND METHOD FOR IDENTIFYING GASOLINE TYPE

(54) 発明の名称: ガソリンの液種識別装置およびガソリンの液種識別方法



**(57) Abstract:** The types of gasoline having various compositions with different distillation characteristics are identified accurately and quickly. A pulse voltage is applied for a predetermined time to an identification sensor heater having a heater and a liquid temperature sensor for identification arranged in the vicinity of the heater, so that a gasoline to be identified is heated by the heater. The type of gasoline is identified by a voltage output differential (V0) corresponding to a temperature differential between the initial temperature and the peak temperature of the liquid temperature sensor for identification.

(57) 要約: 蒸留性状の相違する様々な組成のガソリンについて、正確にしかも迅速にガソリンの種類を識別する。ヒーターと、ヒーターの近傍に配設された識別用液温センサーとを備えた液種識別センサーヒーターに、パルス電圧を所定時間印加して、

〔統葉有〕

**WO 2004/025287 A1**



(81) 指定国 (国内): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) 指定国 (広域): ARIPO 特許 (GH, GM, KE, LS, MW, MZ, SD, SL, SZ, TZ, UG, ZM, ZW), ユーラシア特許 (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM), ヨーロッパ特許 (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB,

GR, HU, IE, IT, LU, MC, NL, PT, RO, SE, SI, SK, TR), OAPI 特許 (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

添付公開書類:

- 国際調査報告書
- 請求の範囲の補正の期限前の公開であり、補正書受領の際には再公開される。

2文字コード及び他の略語については、定期発行される各PCTガゼットの巻頭に掲載されている「コードと略語のガイダンスノート」を参照。

# INTERNATIONAL SEARCH REPORT

International application No.  
PCT/JP03/11569

## A. CLASSIFICATION OF SUBJECT MATTER

Int.Cl<sup>7</sup> G01N25/18, G01N27/18, F02D15/00, F02D45/00, F02P5/15

According to International Patent Classification (IPC) or to both national classification and IPC

## B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Int.Cl<sup>7</sup> G01N25/00-25/72, G01N27/14-27/18, F02D15/00-15/04,  
F02D45/00, F02P5/145-5/155

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Jitsuyo Shinan Koho	1922-1996	Toroku Jitsuyo Shinan Koho	1994-2003
Kokai Jitsuyo Shinan Koho	1971-2003	Jitsuyo Shinan Toroku Koho	1996-2003

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)  
JICST FILE (JOIS)

## C. DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y A	JP 11-153561 A (Mitsui Mining & Smelting Co., Ltd.), 08 June, 1999 (08.06.99), Full text; Figs. 1 to 15 (Family: none)	1, 3-8, 10-20 2, 9
Y A	JP 3-262949 A (Matsushita Electric Industrial Co., Ltd.), 22 November, 1991 (22.11.91), Full text; Figs. 1 to 4 (Family: none)	1, 3-8, 10-20 2, 9

☒ Further documents are listed in the continuation of Box C. ☐ See patent family annex.

\* Special categories of cited documents:  
 "A" document defining the general state of the art which is not considered to be of particular relevance  
 "E" earlier document but published on or after the international filing date  
 "L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)  
 "O" document referring to an oral disclosure, use, exhibition or other means  
 "P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention  
 "X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone  
 "Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art  
 "&" document member of the same patent family

Date of the actual completion of the international search  
16 December, 2003 (16.12.03)

Date of mailing of the international search report  
20 January, 2004 (20.01.04)

Name and mailing address of the ISA/  
Japanese Patent Office

Authorized officer

Facsimile No.

Telephone No.

## INTERNATIONAL SEARCH REPORT

International application No.

PCT/JP03/11569

## C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

Category*	Citation of document, with indication, where appropriate, of the relevant passages	Relevant to claim No.
Y	WO 01/44761 A (Mitsui Mining & Smelting Co., Ltd.), 21 June, 2001 (21.06.01), Full text; Figs. 1 to 6 & JP 2001-174303 A Full text; Figs. 1 to 5 & EP 1253407 A Full text; Figs. 1 to 6	6, 7, 13, 14
Y	JP 4-178550 A (Hitachi, Ltd.), 25 June, 1992 (25.06.92), Full text; Figs. 1 to 2 (Family: none)	17-20